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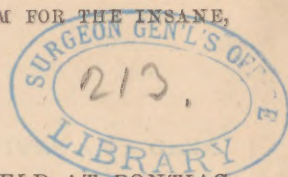
THE HEREDITARY INFLUENCE
OF
ALCOHOLIC INDULGENCE
UPON THE
PRODUCTION OF INSANITY.

BY HENRY M. HURD, M. D.,
SUPERINTENDENT OF THE EASTERN MICHIGAN ASYLUM FOR THE INSANE,
AT PONTIAC.

A PAPER READ AT A SANITARY CONVENTION HELD AT PONTIAC,
MICHIGAN, JANUARY 31 AND FEBRUARY 1, 1883.*

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Physical characteristics are transmitted by parents to their children. The expression and distinctive features of the countenance, the color of the hair and eyes, the complexion, the texture of the skin, the physical stature, the gait and general bearing of the father or mother are reproduced in their children. The same is equally true of mental characteristics. They are notably matters of inheritance. Diseased bodily states are also inherited. Gouty, rheumatic and tubercular parents beget children whose constitutions are impaired by the inherited taint in the blood.

As a general rule the more wide-spread or deep-seated the constitutional disease of the parent the greater the probability of its transmission in some form to his children. It is not usually transmitted as an actual disease but as a condition of the bodily system which predisposes the offspring to take on diseased action whenever adequate exciting causes are present. If a person

predisposed to tubercular disease does not live prudently in accordance with hygienic laws, avoiding excesses, unhealthy occupations, unhealthy climates or undue exposures to the weather, there is every reason to anticipate that he too will develop a similar disease. This tendency, it is true, is not inevitable. On the contrary the latent capacity of the individual for the development of tubercular disease may, through judicious management be kept in abeyance, and he may enjoy a life of comparative health and comfort. The probability that disease will develop whenever circumstances conspire to foster it, is however very strong.

A similar law governs in diseases of the mind or of the nervous system. They are peculiarly transmissible because they affect the most complex part of the human mechanism and tissues which are at all times easily disordered. If a child inherits a defective nervous-organization, the tendency of his growth as he develops is towards a condition of disease; or in other words, the divergence from a healthy standard is wider and wider as the body develops and matures. The sensitiveness of the nervous system is due to the fact that its structure is more unstable than that of any other bodily tissue, and hence destructive changes occur more rapidly in it than in other less highly organized structures. If therefore a child inherits a defect of the nervous system whether from the insanity, inebriety, or nervous exhaustion of his parents, he is much more liable to develop actual disease than if he had inherited a tendency to bodily disease merely. The same is true of mental defects. The eccentricity or violent temper of a father is reproduced as actual insanity in his son. The feeble-minded mother has an idiot child. Highly nervous parents beget children whose lives are clouded by the forebodings of insanity. The children of insane parents inherit a capacity for the development of mental disease. These and similar degenerations can be predicted with comparative certainty when the morbid characteristics of parents are fully known.

My theme is the relation of drunkenness in the parent to insanity in his children. It is my purpose to show that the inebriety of a parent is as potent as his actual mental disease or mental deficiency to predispose his children to the development of insanity in their turn. This is shown by the following facts:

1st. Drunkenness is a transient insanity. Its early stage of exhilaration and mild excitement, its later stage of delirium and mental aberration and its last stage of stupor and profound insensibility—all correspond with similar stages in attacks of insanity. The inebriate in his debauch passes in a few hours through a psychical disturbance which differs in no respect from an attack of one of the forms of insanity, except in its duration. Examples of the transmission of this transitory mental aberration from parents to children are unfortunately too common. Every public institution for the care of the defective or dependent classes shelters persons whose mental organization has been defective from birth in consequence of the transgressions of their parents in this manner.

2d. Prolonged and continuous indulgence in alcoholic liquors produces actual brain changes. In the brains of drunkards effusions of serum are found beneath the covering membranes and an alteration in the color and consistency of the brain substance. The brain is harder than normal and its proportion of white substance is increased. This arises from the fact that alcohol has an especial affinity for nervous structure and modifies its composition and nutrition whenever it is taken into the system. Organic alterations of structure of this character must affect the brain and nervous system of offspring equally with

other similar degenerations which are known to be transmitted. The "good," that is, healthy tree, may, by accident or misfortune, bring forth poor fruit, but the "*corrupt*" or diseased tree *cannot* bring forth good fruit.

3d. Chronic alcoholic indulgence impairs, if it does not destroy, the mental vigor of the individual. It impairs the memory, the reason, the sound judgment, and the will. It unsettles a man by taking away from him habits of industry, of self respect, and of orderly living, and by substituting idleness, self indulgence, and a feeling of irresponsibility. Such mental characteristics in parents do not lead us to look for their opposites in their children. Idleness, improvidence, and vice are generally handed down from generation to generation.

4th. Chronic alcoholic indulgence produces more serious disturbance of the moral than of the intellectual faculties even. The inebriate is quarrelsome, irritable, untruthful, immoral, vicious, and brutal. He displays moral perversions and loses his sense of justice, of honor, and of right and wrong. No inheritance can be worse than vicious propensities, and no qualities are surer to be transmitted to children.

5th. Chronic alcoholic indulgence produces actual disease of the mind and of the nervous system. Hammond states that in his experience it produces every form of insanity, including that most hopeless form known as general paresis. He also from his own experience gives a list of ten distinct diseases of the brain, three diseases of the spinal cord, four diseases of the cerebro-spinal system, that is of the brain and spinal cord combined, and five of the nerves which are directly traceable to chronic alcoholism. These statements have been confirmed by all who have had experience in the treatment of nervous and mental diseases. It is needless to say that all of these forms of disease existing in parents, *however they have been acquired*, are known to affect the susceptibility of offspring to develop similar diseases. If children escape actual disease, they nevertheless inherit a diminished power to resist morbid influences in the direction of diseases of the brain or nervous system.

6th. The marked instability which characterizes the nervous system of the children of inebriates is shown by the facility with which the transformation of normal conditions into abnormal states occurs. They are light-headed after a slight derangement of digestion or of the circulation and easily develop trance states, somnambulism, hysteria, and cataleptoid conditions. Their vital resistance, which depends largely upon a good state of innervation, is lessened, and they fall whenever any mental or physical strain comes upon them. The children of inebriate parents are notably liable from this cause to accustom themselves to stimulants, and to resort to alcoholics, opium, chloral, or tobacco to spur their flagging energies to action.

It being, therefore, granted that the inebriety of parents is a potent agent in determining the susceptibility of children to develop insanity, it becomes now a matter of interest to consider the characteristics of those who have received this morbid inheritance.

THE CHARACTERISTICS OF THESE PATIENTS.

Some of the children of drunkards inherit immediately from their parents diseases like epilepsy, chronic chorea, hysteria, idiocy, or imbecility. They are objects of interest, from the standpoint of the pathologist or physician, from the cradle to the grave. They suffer, and are burdens to their friends or to the community as long as they live. Their condition will be more fully described in another connection. I now desire rather to speak of the characteristics of

those who do not inherit actual disease. As a rule such children are precocious. They develop prematurely and show considerable intellectual quickness. They often possess a taste for music or painting, or for special handicrafts, and are ingenious, winning, and attractive to all who come into relations with them. They are tasteful in dress, if females, and showy, almost brilliant, in conversation and bearing. They sometimes display from tender years perversions of the moral sense. They are untruthful, unscrupulous as to the means employed to accomplish cherished plans, indifferent to the property rights of others, and lacking in an appreciation of abstract right and justice. At puberty they often develop unpleasant characteristics. They usually display at this time a lack of mental equilibrium, and frequently lose those traits of mind which in childhood proved attractive. They are wayward, jealous, suspicious, perverse, and often shock their parents and interested friends by acts of apparently wanton cruelty towards younger children or towards animals. As adult life is reached, if females, they become hysterical and nervous, and often sink into a condition of invalidism, which terminates sooner or later in actual insanity. Males, at a corresponding age, become restless, reckless, dissipated, and vicious. Many of both sexes develop insanity at adolescence without adequate exciting cause, and remain insane for life. It would seem as if the original potential energy of the brain and nervous system had become exhausted during the comparatively brief period of childhood and youth. Stimulated to unnatural activity by a highly excitable nervous system, they develop precociously and wear out prematurely. If the early environment of such persons has been favorable, or the morbid tendencies derived from one parent have been neutralized by those inherited from the other, they may go through life without breaking down. All, however, are liable to develop insanity whenever subjected to any severe strain. Financial reverses, over-work, over-worry, ill health, child bearing, change of life, old age,—these and many other exciting causes are sufficient to destroy mental health. Whenever mental disease is thus developed, the ability of the individual to recover is much diminished. As a rule such persons do not recover from attacks of mental disease, or at best make what is known, for lack of a better expression, as “imperfect recoveries.” They are liable to a recurrence of similar attacks upon slight exciting causes, and eventually become incurable. In many instances the fact that a tendency to insanity has been derived from an inebriate ancestor renders it necessary to give an unfavorable opinion as to the prospects of complete recovery from an attack of insanity which under other circumstances would have been curable. This will be referred to again further on.

FORMS OF DISEASE.

What forms of mental disease are developed in the children of drunkards, and what are the peculiar characteristics of such diseases? A careful analysis of several hundred cases admitted for treatment to the Eastern Michigan Asylum shows that in about *seven and one-half per cent of the males* and in about *eight and one-half per cent of the females*, there was a definite history of inebriety in one or both parents. I am positive that these figures fail to indicate the full extent of inebriate heredity in insane patients, because they very rarely show the habits of any except the immediate ancestors, that is the father or mother. I am of the opinion that if we knew the habits of the grandparents or other remote ancestors, we would discover the key to many cases—the causes of which at present seem mysterious. It should not be forgotten also that many patients are admitted to asylums whose histories are

very faulty. From all the facts which have come to my knowledge in the investigation of this subject, I have no hesitation in saying that at least ten per cent of all insane persons at present under treatment in the Eastern Michigan Asylum owe their predisposition to mental disease to an inebriate heredity. The greater proportion of females inheriting this predisposition is due to the fact that daughters are much more liable to inherit the mental and physical characteristics and defects of their fathers, while sons inherit similarly from their mothers; and, for obvious reasons fathers are much more liable than mothers to transmit the degenerations and diseased tendencies which originate in alcoholic indulgence. In females, too, the tendency is to the development of a more active form of insanity, and the probabilities of recovery are correspondingly better. In males there is a relatively greater tendency to the development of degenerative forms of disease. This is probably due to the fact that when mental and physical characteristics are derived by males from the father the mental equilibrium and physical vigor are not as uniformly maintained as when these characteristics are derived from the mother, and hence the probability of a degenerative brain change is increased if the father is an inebriate. The same is also true of females when a neurosis is derived from an inebriate mother, whose characteristics they inherit. The female children of drunkards suffer in relative frequency from the following forms of insanity: Mania (excitement), dementia (loss of mental vigor), melancholia (depression), epilepsy (convulsive seizures), and idiocy (inherited mental deficiency.) Male children suffer from dementia (loss of mental vigor) most frequently, next from mania, then from epilepsy, melancholia, and idiocy. If both father and mother are intemperate there is an increased tendency to epilepsy or imbecility. If inebriety be present in one parent and insanity in another, an incurable form of insanity is very apt to be developed in the children. In the majority of cases mental disease develops itself at the period of life when the greatest strain comes upon the endurance of the individual, that is, between the ages of 20 and 45 years. Between these years women suffer from the perils and accidents of child-bearing. They have the cares and responsibilities of families, and undergo the fatigue and exhaustion consequent upon the care of children and the nursing of the sick. Men during this period labor the most constantly and endure the greatest hardships. They encounter greater business perplexities and assume larger responsibilities. The grosser passions are also more active, and the danger of exhaustion from this cause is largely increased. When the nervous energy and physical vigor of the individual are exhausted, the nutrition of the brain cells is interfered with and irritative changes occur within them. These changes produce attacks of mania—a form of insanity characterized by excitement; or melancholia—a form of insanity marked by depression, painful delusions, and morbid fears. If the original nerve constitution be unstable, as in the offspring of drunkards, there is a lack of recuperative power after the attack of excitement or depression is over, and the termination of the disease is in permanent weakening of the mind.

In some instances an inebriate heredity develops in one child as depravity, in another as inebriety, in a third as hysteria, and in a fourth as insanity.

In these unfortunate cases, where the brain and nervous system of the parent were poisoned by alcohol when their existence began, conditions of actual disease are always present. In some instances the brain and nervous system are endowed with an excessive degree of excitability which gives rise to convulsive seizures or to chronic chorea. Here the reaction of the nervous

system to external stimulation is excessive, and perpetual disease and disorder results. In other cases the growth of the brain has been arrested prior to birth, and the mind does not develop at all, or it develops very imperfectly. This is ascribed by some to the direct effect of alcohol to increase the growth of the connective tissue of the brain, which is developed at the expense of the gray matter, and thus encroaches upon the thought-producing portion of the brain structure.

The limitations placed upon me by the brief time at my disposal, and the exigencies of a paper addressed to a popular audience, have only permitted me to state bare conclusions in a dogmatic manner. I trust, therefore, you will bear with me while I give briefly a few cases which are presented to illustrate more clearly some of the foregoing statements.

In one instance an inebriate father had an imbecile daughter, and she in turn gave birth to an idiot of the lowest grade. The mother was capable of some useful employment, and had taste in dress and some refinement. Her son was incapable of conversation, or of attention to physical wants, and has for many years required the care and attention which is only possible for such unfortunates in a large public institution.

A farmer of acknowledged ability and standing, who was extremely well connected, drank alcoholics to excess during his life. His daughter became insane, and for many years suffered from alternate periods of elation and depression. A son was peculiar and never successful in business, and another son committed suicide during a period of depression. The daughter had several children, one of whom suffered from epilepsy, another from hip-joint disease, and a third was reckless and headstrong.

In some instances mental or nervous defects can be traced directly to inebriety, as the following will show: A German of education and of good habits came to America in early manhood and married. His first child inherited a good nervous organization and was healthy. Becoming involved in financial difficulties he then became dissipated, and a daughter who was subsequently born, although possessing considerable mental force and physical vigor, became insane without adequate exciting cause at the age of seventeen years, but through prompt treatment made a good recovery. A third child born when his habits of dissipation were fully confirmed had a very impressible nervous organization, and became morbid at an early age, and was seriously threatened with insanity before puberty. It is evident that the varying degrees of health of these three children were directly related to the increasing inebriety of the father.

As has already been stated insanity is not invariably inherited from inebriate ancestry. Defects in other directions are frequently developed as well. In one instance all the children of an inebriate were eccentric, suspicious, peculiar in their religious views and generally at variance with the rest of mankind; one only was insane. In another instance, of four children born to an inebriate father, two had the opium habit, a third committed suicide, and a fourth was insane. In another instance an intemperate father had an eccentric and very miserly son, and he in turn had an insane son.

In some instances the hereditary taint seems to descend to a *second* generation, leaving the first generation comparatively healthy. In investigating the case of an insane patient it was found that both maternal and paternal grandparents had been hopeless drunkards, while the father and mother had led exemplary lives and had escaped attacks of insanity. In the family of the

patient, however, one brother was known to be erratic and although full of ability was unsettled and unsuccessful, while another was depraved.

Cases of similar import could be added until you became wearied. They would only serve to illustrate the statements made, and emphasize the duty of the State to take measures to prevent similar degenerations of the race. The marriage of all inebriates should be prohibited by law, and chronic drunkenness should be made a sufficient ground for divorce. Wise men and good men may honestly differ as to the advisability of prohibiting the liquor traffic by legal enactment. Heretofore in the absence of an overwhelming public sentiment in its favor, all attempts at prohibition have been futile. The propriety and necessity of some efficient legal steps to arrest the degenerations which flow from chronic alcoholic indulgence commend themselves to the reason and judgment of every good citizen.

To recapitulate: In the foregoing paper I have endeavored to show that inebriety in parents is a frequent cause of the insanity of their children, because drunkenness produces a transient insanity, even in a healthy brain; chronic drunkenness produces organic brain diseases, bringing in their train impairment of the memory, inactivity of the reason, a weakening of the will, and a loss of the natural affections; also moral perversions and vicious propensities, and finally, unmistakable diseases of the mind and nervous system—all of which are capable of transmission to children.

That the children of inebriate parents inherit diseases, such as epilepsy, hysteria, chorea and idiocy, or if not actual diseases, nervous systems which are abnormally responsive to every form of disturbing influence and are easily disordered.

That between the ages of twenty and forty-five insanity is liable to be developed in the children of inebriates, and that insanity of this type is recovered from imperfectly or not at all.

And finally, that however much people may differ as to the expediency of "prohibition," so called, in the present state of public sentiment, there should be no difference of opinion among thinking men as to the right and duty of the State to take strenuous measures to prevent the transmission of an inebriate heredity to children.

